

REMARKS/ARGUMENTS

The Applicant originally submitted Claims 1-20 in the application. In the present response, the Applicant has not amended, canceled, or added any claims. Accordingly, Claims 1-20 are currently pending in the application.

I. Rejection of Claims 1-20 under 35 U.S.C. §103

The Examiner has rejected Claims 1-20 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,825,878 to Takahashi, *et al.* (hereinafter "Takahashi") in view of a paper entitled "Using a High-Performance, Programmable Secure Coprocessor" by Smith, *et al.* (hereinafter "Smith"). The Applicant respectfully disagrees since the cited portions of the cited combination of Takahashi and Smith neither teaches nor suggests data input and output registers located outside of a secure execution environment (SEE) as recited in independent Claims 1, 8, and 15.

In the Response to Arguments portion of the pending action, the Examiner equates SRAM 18 of Takahashi to the claimed input and output registers. (See Examiner's Action of June 24, 2008, page 2.) Assuming *arguendo* this to be true, the Applicant fails to find where the SRAM 18 of Takahashi is outside a secure execution environment as presently claimed. Takahashi teaches a secure memory management integrated circuit in which all processing takes place on buses internal to the chip so that detection of clear unencrypted instructions and data is prevented. (See, e.g., Abstract and Fig. 1 of Takahashi.) Thus, Takahashi teaches the SRAM, which the Examiner has equated to the claimed data input and output registers, inside the secure memory management chip is a secure execution environment (as understood by one of ordinary skill in the art at the time of the

invention and as defined in paragraph [0003] of the original specification). As such, Takahashi, as applied by the Examiner, does not teach data input and output registers located outside of a SEE as presently claimed. Furthermore, the cited portions of Takahashi do not suggest the same.

Takahashi is directed to providing physical security to components and accomplishes this security by expressly limiting access to data and instructions through a single interface in which all transactions with the physically secured components must pass (in Takahashi the interface is memory controller 16). Takahashi does not address the problem to which the invention as presently claimed is directed, namely achieving higher encryption or decryption throughput in a system-on-a chip (SoC) that uses a cryptographic accelerator without compromising key or process security. As noted in the original specification, a configuration such as that of Takahashi where data to be encrypted/decrypted must pass through an interface controlled by a controller provides a diminished throughput for the encryption or decryption of time-sensitive streaming data or large files. (See, e.g., paragraphs [0004]-[0006] of the original specification.) As such, Takahashi, as applied by the Examiner, does not teach or suggest data input and output registers located outside of a SEE as recited in independent Claims 1, 8, and 15.

The cited portion of Smith has not been cited to cure the above-noted deficiencies of Takahashi but, rather, to teach a secure memory coupled to a key register to receive a cryptographic key therefrom. (See Examiner's Action of June 24, 2008, pages 4 and 7.) As such, the cited combination does not provide a *prima facie* case of obviousness for independent Claims 1, 8, and 15 and Claims that depend thereon. Accordingly, the Applicant respectfully requests the Examiner to withdraw the §103(a) rejection of Claims 1-20 and allow issuance thereof.

II. Conclusion

In view of the foregoing amendment and remarks, the Applicant now sees all of the Claims currently pending in this application to be in condition for allowance and therefore earnestly solicits a Notice of Allowance for Claims 1-20.

The Applicant requests the Examiner to telephone the undersigned agent of record at (972) 480-8800 if such would further or expedite the prosecution of the present application. The Commissioner is hereby authorized to charge any fees, credits or overpayments to Deposit Account 20-0668.

Respectfully submitted,

HITT GAINES, PC

A handwritten signature in black ink that reads "Steven J. Hanke". The signature is written in a cursive, flowing style.

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